

WHAT IS CLAIMED IS:

1. An active-matrix liquid crystal display device comprising:

a plurality of pixel formation portions for forming an image to be
5 displayed;

a plurality of video signal lines for transmitting a plurality of video
signals representing the image to the plurality of pixel formation portions;

a plurality of scanning signal lines intersecting with the plurality of
video signal lines, the plurality of pixel formation portions being arranged in
10 a matrix, in correspondence to intersections of the plurality of video signal
lines and the plurality of scanning signal lines;

a scanning signal line driving circuit for selectively driving the
plurality of scanning signal lines; and

a video signal line driving circuit for applying the plurality of video
15 signals to the plurality of video signal lines;

wherein each of the pixel formation portions takes in, as a pixel value,
the video signal applied by the video signal line driving circuit to the video
signal line passing through the corresponding intersection when the
scanning signal line passing through the corresponding intersection is
20 selected by the scanning signal line driving circuit;

wherein the scanning signal line driving circuit alternates a first
skipping scanning process in which the plurality of scanning signal lines are
driven by selecting, in a predetermined order, scanning signal lines that are
spaced apart by one or a predetermined number of scanning signal lines, and
25 a second skipping scanning process in which the plurality of scanning signal
lines are driven by selecting, in a predetermined order, the scanning signal
lines that are not selected in the first skipping scanning process; and

wherein the video signal line driving circuit applies to the plurality of
video signal lines voltages of like polarity in the first skipping scanning
30 process and voltages of like polarity in the second skipping scanning process

as the plurality of video signals, and inverts the polarities of the voltages that are applied to the plurality of video signal lines when the driving of the scanning signal lines by the scanning signal line driving circuit switches from the first skipping scanning process to the second skipping scanning
5 process.

2. The active-matrix liquid crystal display device according to claim 1, wherein the scanning signal line driving circuit selectively drives the plurality of scanning signal lines such that a scanning direction based on the
10 order in which the scanning signal lines are selected in the first skipping scanning process is opposite to a scanning direction based on the order in which the scanning signal lines are selected in the second skipping scanning process.

15 3. The active-matrix liquid crystal display device according to claim 1, wherein the scanning signal line driving circuit puts the plurality of scanning signal lines into an unselected state for a predetermined period after the second skipping scanning process.

20 4. The active-matrix liquid crystal display device according to claim 1, wherein each of the pixel formation portions comprises:

a switching element that is turned on when the scanning signal line passing through the corresponding intersection is selected, and that is turned off when the scanning signal line passing through the corresponding
25 intersection is not selected;

a pixel electrode that is connected via the switching element to the video signal line passing through the corresponding intersection; and

a common electrode that is shared by the plurality of pixel formation portions, and that is arranged such that a predetermined capacitance is
30 formed between the common electrode and the pixel electrode;

wherein the pixel electrodes connected to the switching elements that are turned on and off by the same scanning signal line, are distributed over two vertically adjacent rows in the matrix made of the plurality of pixel formation portions.

5

5. A method for driving an active-matrix liquid crystal display device comprising a plurality of pixel formation portions for forming an image to be displayed; a plurality of video signal lines for transmitting a plurality of video signals representing the image to the plurality of pixel formation portions; and a plurality of scanning signal lines intersecting with the
10 plurality of video signal lines, the plurality of pixel formation portions being arranged in a matrix, in correspondence to intersections of the plurality of video signal lines and the plurality of scanning signal lines;

the method comprising:

15 a scanning signal line driving step of selectively driving the plurality of scanning signal lines; and

a video signal line driving step of applying the plurality of video signals to the plurality of video signal lines;

wherein, in the scanning signal line driving step, a first skipping
20 scanning process in which the plurality of scanning signal lines are driven by selecting, in a predetermined order, scanning signal lines that are spaced apart by one or a predetermined number of scanning signal lines is performed in alternation with a second skipping scanning process in which the plurality of scanning signal lines are driven by selecting, in a
25 predetermined order, the scanning signal lines that are not selected in the first skipping scanning process; and

wherein, in the video signal line driving step, voltages of like polarity are applied to the plurality of video signal lines in the first skipping scanning process and voltages of like polarity are applied to the plurality of video
30 signal lines in the second skipping scanning process as the plurality of video

signals, and the polarities of the voltages that are applied to the plurality of video signal lines are inverted when the driving of the scanning signal lines in the scanning signal line driving step switches from the first skipping scanning process to the second skipping scanning process.

5

6. The driving method according to claim 5, wherein, in the scanning signal line driving step, the plurality of scanning signal lines are driven selectively such that a scanning direction based on the order in which the scanning signal lines are selected in the first skipping scanning process is
10 opposite to a scanning direction based on the order in which the scanning signal lines are selected in the second skipping scanning process.

7. The driving method according to claim 5, wherein, in the scanning signal line driving step, the plurality of scanning signal lines are put into an
15 unselected state for a predetermined period after the second skipping scanning process.